



2008 GREENHOUSE GAS EMISSIONS INVENTORY

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SUMMARY

As part of Chula Vista's climate protection program and its commitment to reduce greenhouse gas (GHG) or "carbon" emissions 20% below 1990 levels, the Department of Conservation & Environmental Services performs emissions inventories to identify GHG sources and to help guide policy decisions. The *2008 GHG Emissions Inventory* is the City's second formal evaluation of its progress in reaching its emissions goals. The 2008 inventory utilizes the new Local Government Operations Protocol which was developed jointly by ICLEI, the California Climate Action Registry, and the California Air Resource Board. With the new protocol, this report builds upon past inventory efforts (1990 and 2005) by incorporating newly-available emission coefficients to more accurately assess emission levels in all three inventory years and to more confidently determine emission trends over time. The 2008 inventory indicates that Chula Vista's annual citywide GHG levels have increased with expansion of its housing stock and population. Compared to 1990, Chula Vista's citywide GHG emissions have increased by 29%, however per capita and per housing unit levels are approximately 25% and 17% below 1990 levels, respectively. GHG emissions from municipal sources (i.e. operations, facilities, and vehicle fleet) in 2008 are approximately 43% below 1990 levels. It should be noted that a large reason for the stabilization of community-wide emissions and the decrease of municipal operation emissions (compared to results previously reported in the *2005 GHG Emissions Inventory*) is due to the new emission coefficients. For example, transportation levels and energy use in the community have generally increased in every inventory year since 1990.

To reach the community emissions reduction commitment outlined in the CO₂ Reduction Plan, the City must decrease annual emissions by at least 352,997 metric tons of carbon equivalent.

INTRODUCTION

Chula Vista has historically been a regional and national leader in climate protection policies and programs designed to reduce greenhouse gas or "carbon" emissions. The City has participated in the United Nations Framework Convention on Climate Change, ICLEI Cities for Climate Protection Campaign, and the Conference of Mayor's Climate Protection Agreement. In addition, Chula Vista recently joined the California Climate Action Registry which is the State's premier voluntary greenhouse gas (GHG) reporting system designed to archive participants' early actions to reduce GHG emissions and prepare them for future carbon trading opportunities. Through this past involvement, the City has committed itself to reducing its greenhouse gas emissions 20% below 1990 levels by 2010 based on a widely-adopted international target. It should be noted that the international community has since revised the reduction target date to 2012.

The City of Chula Vista's Greenhouse Gas Emissions Inventory for calendar year 2008 was compiled and calculated using the Local Government Operations Protocol (LGOP) and ICLEI's Clean Air & Climate Protection 2009 software (Version 2.1). The LGOP was designed by ICLEI, the California Climate Action Registry, and the California Air Resources Board to allow local governments to better estimate their annual greenhouse gas emissions from municipal-operated sources. The software also calculates the emissions from major community sources in order to help further shape local climate change policy and goals. The LGOP incorporates newly-available emission coefficients which are specific to California and/or the City's energy provider, San Diego Gas & Electric (SDG&E), to provide more accurate emissions quantifications. As a result, staff has recalculated emission levels for 1990 and 2005 inventories with these new coefficients to ensure an "apples to apples" comparison and to more confidently determine emission trends over time.

As stated above, the *2008 GHG Emissions Inventory* separates emissions into two major analyses, community and municipal. The community analysis represents the quantity of GHG emissions produced throughout the entire City from both public and private sectors. The municipal analysis only represents emissions from City facilities and operations. In both analyses, the protocol evaluates emissions from three main parameters - energy consumption, transportation, and waste. It is important to clarify that these data parameters are based solely on end use or net results. For example, the City's emissions from electricity are calculated based on the total kilowatts used, not the kilowatts saved in City-sponsored efficiency programs or the emissions output of the South Bay Power Plant. Although there are six GHGs outlined in the Kyoto Protocol – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆) – the inventory calculates emissions based on CO₂ Equivalent or CO₂e which allows emissions of different strengths to be added together. For example, one metric ton of methane emissions is equivalent to 21 metric tons (MT) of carbon dioxide (or CO₂e) in global warming potential.

In addition to outlining its 2008 inventory results in this report, the City has formally submitted its municipal inventory to the California Climate Action Registry (CCAR) for public review and vetting. The CCAR process, which was initially created by the State of California, is a more robust greenhouse gas accounting procedure requiring third-party verification. Participation in CCAR complements the City's other climate protection efforts by documenting GHG emissions as it relates to Assembly Bill 32's (California Global Warming Solutions Act of 2006) statewide reduction targets and prepares the City for potential carbon trading opportunities in the future. The City of Chula Vista is the first local government in San Diego County to successfully report its GHG emissions through the California Climate Action Registry. In future years, the City will transition reporting to The Climate Registry which is CCAR's North American counterpart. It should be noted that the total municipal emissions reported in this inventory differ from the total emissions in the City's 2008 California Climate Action Registry emissions report due to CCAR's slightly different carbon accounting methodology.

RESULTS

With technical assistance from ICLEI, City staff collected "activity data" from a number of municipal and external sources, including CalTrans, SDG&E, California Integrated Waste

Management Board (CIWMB), the Chula Vista Recreation Department, and the Public Works Department (Table 1). In most cases, these data sources were able to provide aggregated empirical data for calendar year 2008. However, it was necessary to use 2007 data for community transportation levels from CalTrans' Highway Performance Monitoring Systems due to the unavailability of 2008 data. Staff also updated the 2005 inventory to base that year's transportation values on the more accurate Highway Performance Monitoring Systems values.

Default emission coefficients and related assumptions were generally used for transportation and waste analyses. For energy analyses, staff included Utility-specific electricity coefficients for CO₂ emissions. If these coefficients were not available for a particular inventory year (or prior year), the California Grid Average electricity emission coefficients were used. All inventories used the California Grid Average electricity coefficients for CH₄ and N₂O emissions for the particular year (or most recently available year). This approach is consistent with the new Local Government Operations Protocol and preferred by the California Air Resources Board, the California Climate Action Registry, and ICLEI for GHG reporting. As previously mentioned, these newly-available emission coefficients have resulted in staff recalculating past inventory years' emission totals and allows for a more accurate comparison between inventories.

PARAMETER	ANALYSIS	SOURCE	ACTIVITY DATA	EMISSION FACTOR
Energy	Community	SDG&E	<ul style="list-style-type: none"> - Metered electricity & natural gas use - Local power generation plants excluded from Industrial Sector's natural gas totals in order to avoid double counting emissions 	<ul style="list-style-type: none"> - SDG&E-specific electricity emission coefficients (CO₂) - CA average electricity emission coefficients (CH₄ & N₂O) - Default natural gas emission coefficients
	Municipal	SDG&E	<ul style="list-style-type: none"> - Metered electricity & natural gas use - Fuel shipment invoices - Energy consumption was categorized by buildings, outdoor lighting, and wastewater 	
Transportation	Community	CalTrans	- Annual VMT data (excluding freeways) was derived from average daily VMT values for Chula Vista	<ul style="list-style-type: none"> - Default fuel emission coefficients - Default occupancy & vehicle classes (<i>community analysis only</i>)
	Municipal	Public Works Dept.	- Fuel consumption totals include transit and equipment use	
Waste	Community	CIWMB	- Solid waste disposal data for Chula Vista residents and businesses at all California landfills	<ul style="list-style-type: none"> - Default fugitive methane (CH₄) emission estimates (based on EPA WARM Model) - Methane capture rates at Otay Landfill
	Municipal	Allied Waste Services	- Solid waste disposal data includes trash hauled by Allied Waste Services and by City staff	
Other	Municipal	Recreation Dept.	- pH canisters' shipment invoices	- Default fugitive carbon dioxide (CO ₂) emissions coefficients

Table 1: Data sources and emission factors used for community and municipal emissions analyses.

Community Inventory

In 2008, community GHG emissions from Chula Vista totaled 934,630 MT CO₂e (Table 2, Figure 1). The sector with the greatest amount of emissions (approximately 44%) was transportation or mobile sources. The residential sector was the second highest source producing about 29% of total community emissions from energy use, followed by the commercial (23%) and industrial (4%) sectors. Because of the high methane recovery rates at County landfills, the community did not have significant emissions from solid waste disposal.

Chula Vista's 2008 citywide GHG emissions were 29% higher than recalculated 1990 levels and there were emission increases in nearly all sectors compared to 1990 (Figure 1). The City's residential and commercial sectors' energy emissions increased by approximately 38% and 198%, respectively. Emissions from transportation activity were 23% greater in 2008 compared to 1990, while the industrial sector emissions had a 69% reduction between the 2008 and 1990 inventory years from 123,128 to 38,781 annual metric tons most likely due to more accurate energy tracking in recent years (see page 7). Similar to the 1990 inventory, emissions from Chula Vista solid waste disposal at County landfills were not significant in 2008.

Compared to recalculated 2005 emission levels, 2008 emissions from citywide sources increased 17%. The largest emissions increase between the two inventory years was in overall energy use, with commercial energy use increasing from 146,245 to 212,432 MT CO₂e or 45%. Transportation-based emissions actually decreased slightly (<1%) since calendar year 2005.

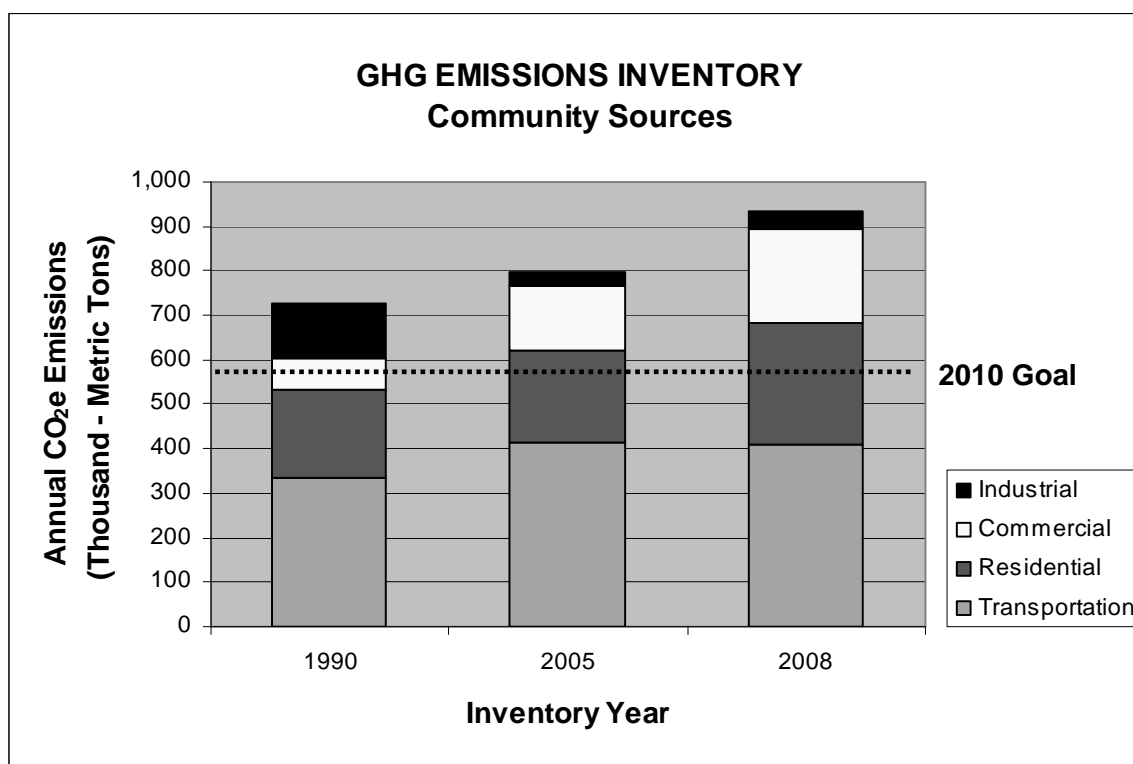


Figure 1: Total GHG emissions from community sources (by sector) in 1990, 2005, and 2008. Emissions from the solid waste sector were non-significant (<1 MT CO₂e) and are not graphed. Dashed line represents 2010 reduction commitment.

COMMUNITY ANALYSIS

Metrics							Annual Greenhouse Gas (GHG) Emissions (Metric Tons CO ₂ e)						
		1990	2005	2008	% Change (2005 vs. 1990)	% Change (2008 vs. 1990)			1990	2005	2008	% Change (2005 vs. 1990)	% Change (2008 vs. 1990)
Population		135,136	217,543	231,305	61%	71%	Per Capita		5.4	3.7	4.0	-32%	-25%
Housing Units		49,849	73,115	77,452	47%	55%	Per Housing Unit		14.6	10.9	12.1	-25%	-17%
Land Area (Acres)		18,558	33,024	33,024	78%	78%	Per Acre		39.2	24.2	28.3	-38%	-28%
Annual Vehicle Miles Traveled (VMT)		465,300,000	684,600,000	697,900,000	47%	50%	Transportation		335,435	412,306	411,446	23%	23%
Energy Use (MMBtu)	Residential	2,438,280	3,416,724	3,641,904	40%	49%	Energy Use	Residential	197,115	207,533	271,971	5%	38%
	Commercial	767,716	2,305,220	2,557,321	200%	233%		Commercial	71,363	146,245	212,432	105%	198%
	Industrial	1,342,551	485,504	388,748	-64%	-71%		Industrial	123,128	32,013	38,781	-74%	-69%
	Total	4,548,547	6,207,448	6,587,973	36%	45%		Total	391,606	385,791	523,184	-1%	34%
Solid Waste (Tons)		179,986	217,881	174,583	21%	-3%	Solid Waste		0	0	0	0%	0%
							Total GHG Emissions		727,041	798,097	934,630	10%	29%
							20% GHG Reduction Goal				581,633		
							Reductions Needed To Reach Goal				352,997		

* All GHG emissions are reported in CO₂ Equivalent (CO₂e) which allows emissions of different strengths to be added together. For example, one metric ton of methane emissions is equivalent to 21 metric tons of carbon dioxide (or CO₂e) in global warming potential.

Table 2: Summary of community GHG inventory metrics and emission levels for 1990, 2005, and 2008.

Although there was an increase in total community emissions from 1990 to 2008, the amount of GHG emissions per person, per household and per acre decreased (Figure 2). The per capita emissions rate was lowered 25% from 5.4 to 4.0 metric tons CO₂e annually. Per household emissions were reduced from 14.6 to 12.1 metric tons (17%), while emissions per acre decreased 28% from 39.2 to 28.3 metric tons. Nonetheless, in order to achieve the City's 2010 GHG reduction target, annual community emissions would be required to be reduced by at least an additional 352,997 metric tons CO₂e.

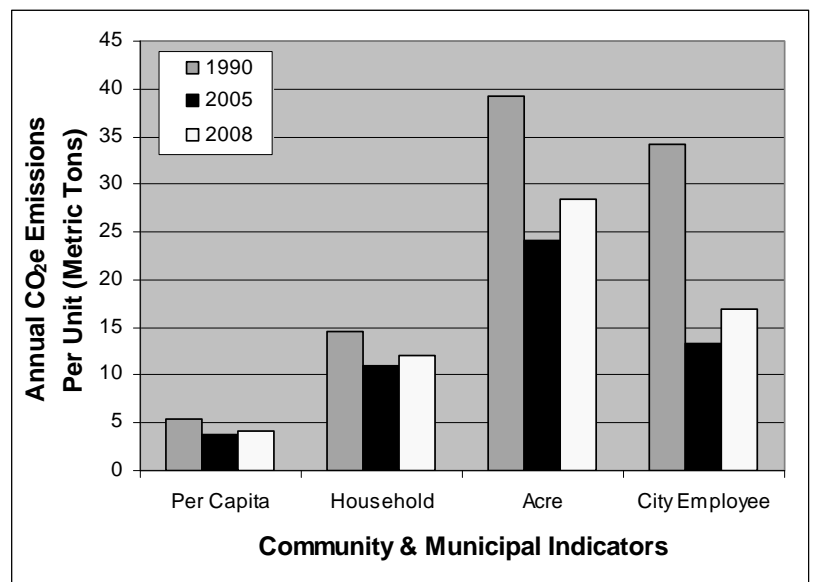


Figure 2: Per capita, household, acre, and City employee contributions to GHG emissions in 1990, 2005, and 2008.

Municipal Inventory

Chula Vista's 2008 municipal GHG emissions were 16,817 metric tons CO₂e (Table 3, Figure 3). Similar to the community analysis, the majority of municipal emissions were from transportation sources representing 46% of total emissions. Energy use for building and outdoor lighting generated 34% and 19% of total emissions, respectively. Emissions from sewage and solid waste operations were not significant in the 2008 municipal analysis

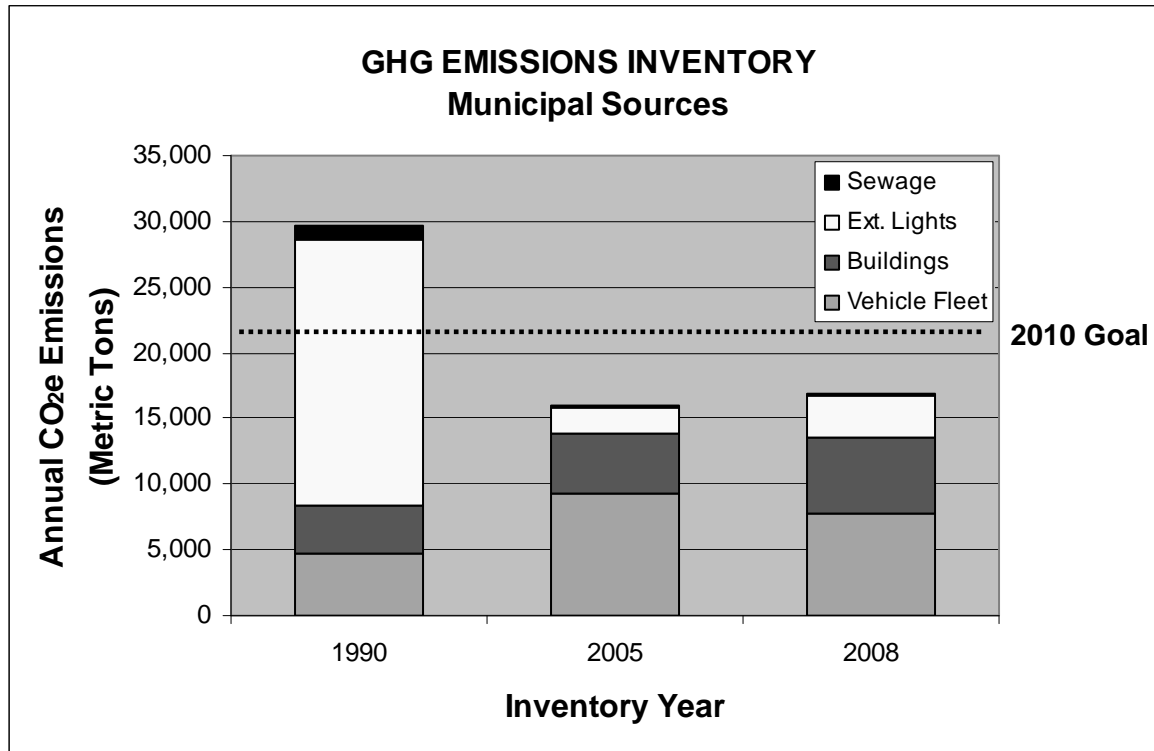


Figure 3: Total GHG emissions from municipal sources (by sector) in 1990, 2005, and 2008. Emissions from the solid waste sector were non-significant (<1 MT CO₂e) and are not graphed. Dashed line represents 2010 reduction commitment.

When compared to recalculated 1990 levels, GHG emissions from municipal operations decreased by 12,807 metric tons CO₂e or 43% and emission levels per City employee (permanent, full-time) decreased 50% (Figure 2, Table 3). These reductions were mainly caused by lower energy consumption in the external lighting sector (Figure 3). Emissions from external lighting energy use (includes street lights and traffic signals) decreased 84% from 20,260 to 3,276 metric tons due to an energy-efficient retrofit program in the mid-1990s. Sewage sector emissions also decreased by 95% resulting in only 51 MT CO₂e being produced in 2008. However, this reduction is most likely due to differences in how pump station energy meters were segregated out of the dataset. The municipal building sector increased its emissions 55% to 5,794 metric tons as new buildings and facilities have been constructed and renovated. The municipal fleet sector which includes Chula Vista Transit increased its emissions to 7,696 MT or 65% higher than 1990. Similar to the 1990 inventory, emissions from municipal solid waste disposal at County landfills were not significant in 2008.

MUNICIPAL ANALYSIS

Metrics							Annual Greenhouse Gas (GHG) Emissions (Metric Tons CO ₂ e)*								
		1990	2005	2008	% Change (2005 vs. 1990)	% Change (2008 vs. 1990)			1990	2005	2008	% Change (2005 vs. 1990)	% Change (2008 vs. 1990)		
Employees		866	1,198	989	38%	14%	Per Employee		34.2	13.3	17.0	-61%	-50%		
Vehicle Fleet Fuel Use (Gallons or Equivalent)		478,344	1,102,823	923,364	131%	93%	Vehicle Fleet		4,655	9,281	7,696	99%	65%		
Energy Use (MMBtu)	Buildings	35,527	70,790	65,439	99%	84%	Energy Use	Buildings	3,728	4,576	5,794	23%	55%		
	External Lights	147,100	27,780	30,422	-81%	-79%		Energy Use	External Lights	20,260	2,032	3,276	-90%	-84%	
	Sewage	7,122	257	480	-96%	-93%			Energy Use	Sewage	981	19	51	-98%	-95%
	Total	189,749	98,827	96,341	-48%	-49%				Energy Use	Total	24,969	6,627	9,121	-73%
Solid Waste (Tons)		5,400	6,603	7,331	22%	36%	Solid Waste				0	0	0	0%	0%
							Total GHG Emissions				29,624	15,908	16,817	-46%	-43%
							20% GHG Reduction Goal					23,699			
							Reductions Needed To Reach Goal				0				

* All GHG emissions are reported in CO₂ Equivalent (CO₂e) which allows emissions of different strengths to be added together. For example, one metric ton of methane emissions is equivalent to 21 metric tons of carbon dioxide (or CO₂e) in global warming potential.

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Table 3: Summary of municipal GHG inventory metrics and emission levels for 1990, 2005, and 2008.

Compared to the recalculated 2005 inventory, the largest increases in 2008 were from the external lighting and building sectors which increased by 1,244 and 1,218 MT CO₂e, respectively. Sewage-related GHG emissions increased slightly by 32 MT CO₂e, while the vehicle fleet sector decreased emissions by 1,585 metric tons or 17% between 2005 and 2008.

DISCUSSION

As demonstrated in this report, Chula Vista's annual community GHG emissions continue to increase as its building stock and population expand. From 1990 to 2008, the total energy use and annual vehicles miles traveled (VMT), which are the major drivers for local GHG emissions in the community, increased in every inventory year (Figure 4). Since 2005 alone, 4,337 new residential units were constructed and numerous business developments including the Eastlake Design Center and the Otay Ranch Town Center were completed. The only community sector to reduce emissions between 1990 and 2008 was the industrial energy use sector. However, because commercial and industrial energy use could not be segregated in the 1990 inventory, their individual emission contributions had to be estimated. Therefore, reductions in industrial sector emissions are most likely due to more accurate energy consumption tracking in 2005 and 2008. If commercial and industrial emission levels are combined in each inventory year, there was an overall 29% increase in emissions from the combined sectors between 1990 and 2008.

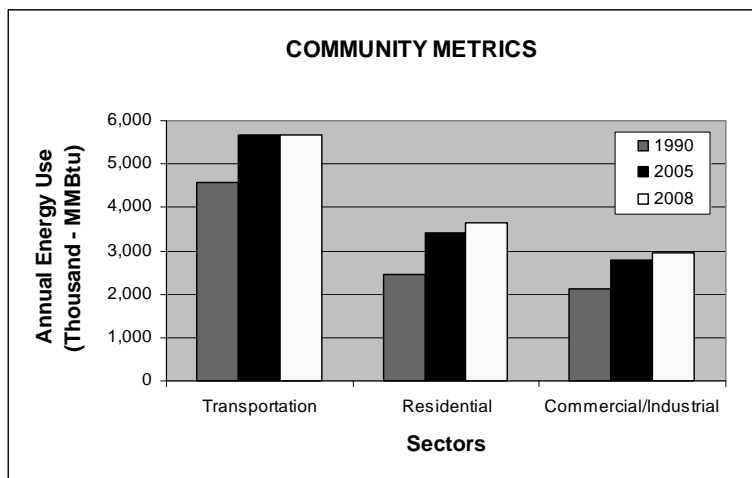


Figure 4: Annual energy use within major community sectors in 1990, 2005, and 2008. Transportation VMT has been converted to Million British Thermal Units (MMBtu) for comparison purposes.

1990. Without these “cleaner” emission coefficients, citywide GHG emissions would have increased by at least 51% between 1990 and 2008.

Newly-available electricity emission coefficients were also used to recalculate 1990 and 2005 inventories resulting in updated emission estimates compared to values previously reported in the *2005 GHG Emissions Inventory* (Figure 5). The more accurate coefficients have recalibrated the City’s previous inventory years and demonstrated that 1990 baseline emissions were previously underestimated, while 2005 emissions were previously overestimated.

Within the municipal inventory, fuel use and building energy use increased between 1990 and 2008. However, fuel use and building energy use have shown slight reductions since 2005 although over 150,000 square feet of facilities have been constructed or renovated including 2 Civic Center buildings, 3 recreation centers, 3 fire stations, and numerous park sites. The City’s investment in more energy efficient traffic signals in the mid-1990s continues to produce dramatic reductions in overall municipal energy consumption and annual GHG emissions.

While the City’s carbon reduction efforts have clearly benefited from newly-available, region-specific emission

The increases in VMT and total energy use since 1990 have been partially offset by lower or “cleaner” emission coefficients. For example, carbon emissions per VMT decreased in recent years due to improved overall fuel efficiencies in most major vehicle classes. Likewise, grid electricity being delivered by San Diego Gas & Electricity over the last 5 years has been derived more from natural gas-fired power plants (and less from coal-fired plants) resulting in lower GHG emission coefficients (Figure 5). For example, carbon emissions from every kilowatt hour (kWh) of electricity consumed was 22% lower in 2008 compared to

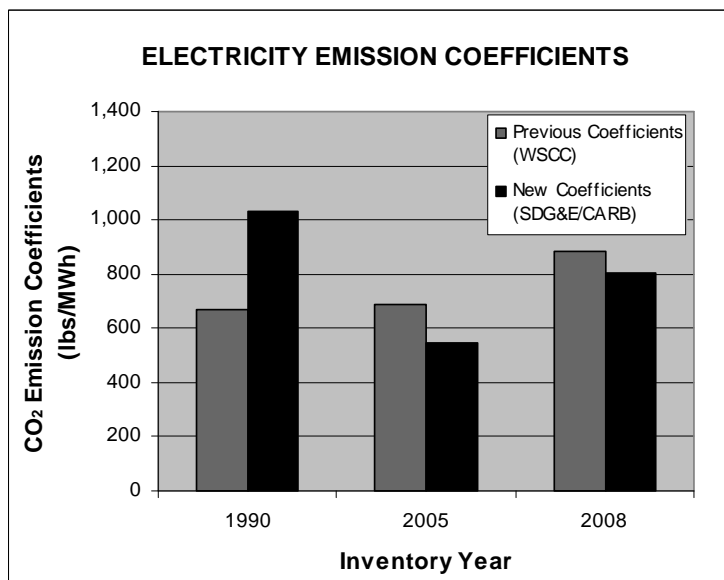


Figure 5: Previous and updated Carbon Dioxide (CO₂) emission coefficients from delivered grid electricity in 1990, 2005, and 2008. Past inventories were recalculated using the newly-available, region-specific coefficients.

coefficients and overall “cleaner” coefficients, Chula Vista must continue its work to lower emission sources, specifically VMT and energy consumption, to meet its emission reduction commitment and offset its anticipated future growth. When the City is “built out” in 2030, there will be an additional 27,000 homes and 85,000 residents within its jurisdiction. Because the majority of these new buildings will be built on currently undeveloped sites, these new structures and residents will create additional sources of GHG emissions regardless of their energy efficiency, walkability, or integrated access to public transit. If 2008 per capita emission levels represent “business as usual,” GHG emission levels could reach 1.2 million MT CO₂e (or 74% over 1990 levels) when the City has been fully developed. While future state and federal climate actions such as increasing grid-delivered renewable energy, improving minimum vehicle fuel efficiency, and lowering fuel carbon content will continue to benefit the City’s climate protection efforts, they will not completely offset future growth or automatically enable Chula Vista to accomplish its carbon reduction commitment.

Over the last few years, Chula Vista has continued its nationally-recognized leadership in climate action planning by developing a new suite of programs and policies designed to reduce greenhouse gas emissions. These seven new climate measures were initially developed and recommended by the City’s Climate Change Working Group (CCWG) - comprised of residents, businesses, and community-group representatives – and were formally adopted by the City Council on April 1, 2008. The new measures focus on lowering energy and water consumption, installing renewable energy systems, promoting alternative fuel vehicle use and designing pedestrian and transit-friendly communities. More-detailed implementation plans for the seven measures were subsequently developed by City staff, vetted through over 25 public forums and meetings, and approved by City Council on July 10, 2008. The seven new measures plus the City’s original Carbon Dioxide Reduction Plan constitute Chula Vista’s comprehensive *Climate Action Plan*.

City staff has begun partial implementation (based on available funding) of the seven measures over the last 12 months to facilitate reductions in GHG emission levels. At a municipal operations level, nearly 30 energy efficiency improvement projects have been completed at City buildings generating over 1 million kWh in annual energy savings and \$160,000 in annual cost savings. In addition, a new 2,500 square foot solar hot water system and two high-efficiency boilers were installed at the Loma Verde Aquatic Center resulting in 50,000 therms in annual energy savings. Since 2005, two Civic Center buildings were redesigned and renovated to replace existing structures with more energy efficient buildings which exceed State energy code standards (Title 24) and incorporate a 30 kW solar photovoltaic system. To maximize the efficient operations of the City’s facilities, eight staff members have recently completed a comprehensive “Building Operator Certification” course. Finally, the Chula Vista vehicle fleet has been augmented with new Compressed Natural Gas (CNG) buses (5) and a hybrid vehicle to replace vehicles with higher carbon emissions. These efforts will help Chula Vista maintain its current 43% GHG reductions (compared to 1990) from municipal operations and assist with further lowering citywide emission levels to meet the 20% commitment.

At the community level, the City has implemented a variety of programs to reduce GHG emissions since 2005. Conservation & Environmental Services Department staff, in partnership with SDG&E, has launched a free energy assessment program to help local

businesses decrease energy consumption and monthly utility costs. To date, over 2,000 businesses have participated in the program and have received over 49,000 energy-saving CFLs in exchange for their incandescent light bulbs. In addition, almost 500 restaurants and food service facilities have received more efficient pre-rinse spray valves for free through the program. The annual savings from the CFL and pre-rinse spray valve exchange program are estimated at 4 million kWh, 135,000 therms, and \$800,000. Likewise, the Development Services Department has modified their plan check review and inspection services to place additional emphasis in incorporating energy efficiency and renewable energy opportunities into new construction and major renovation projects. The City Council also recently approved a new ordinance requiring all new residential units to be pre-wired for solar photovoltaic systems allowing more cost-effective installations later by homeowners and property managers.

NEXT STEPS

Long-term and full implementation of the seven climate protection measures will greatly contribute to meeting the City's carbon reduction goals. For municipal operations, future installation of a biodiesel fuel tank and ongoing replacement of fleet vehicles (upon retirement) with high efficiency and alternative fuel models will decrease emissions from mobile sources. Installation of large-scale solar photovoltaic systems and energy efficiency improvements at City-operated facilities will further reduce emissions from stationary sources. One of the greatest opportunities for energy savings is the retrofit of the City's approximately 9,000 street lights which constitute about 36% of municipal electricity use and 17% of municipal GHG emissions.

On a community level, implementation of two key programs – a mandatory Green Building Standard requiring enhanced energy efficiency levels and a home energy efficiency and solar conversion program (known as the *Home Upgrade, Carbon Downgrade* program) - are imperative to meeting Chula Vista's commitment of reducing citywide emissions 20% below 1990 levels. The Green Building Standard will help to minimize future emission increases from new greenfield development and maximize efficiency of redevelopment projects. Complementary to the Green Building Standard, the *Home Upgrade, Carbon Downgrade* program will immediately and drastically reduce the emissions associated with existing building stock's energy use, water consumption, and wastewater generation. These two programs will be further supplemented by climate measures focused on designing more mixed-use, walkable development around the City's trolley stations and strict new outdoor water use guidelines.

The climate protection measures' success will be largely dependent on securing a long-term funding source for their implementation. Although the City has been able to secure various one-time funding sources to support initial implementation, it will be difficult to sustain the measures without consistent financing. Per City Council's direction, staff is actively pursuing two possible funding options – Energy Franchise Fees and Local Fee Authority. Staff will be returning to City Council in January with a proposal to increase the City's Energy Franchise Fees, which is paid by San Diego Gas & Electric and based on total energy deliveries within Chula Vista, to support long-term implementation. Because energy consumption is a major contributor to community GHG emissions, there is a clear nexus between the fee and local

carbon reduction efforts. The other option, Local Fee Authority, would require State legislation and would allow the City to collect a carbon-based surcharge on energy, water, sewage, solid waste, or similar GHG-related services. Staff is working with representatives from State offices to establish the necessary Local Fee Authority legislation. It is staff's top priority to finalize these funding mechanisms over the next 6 months to support full implementation of the City's carbon reduction or "mitigation" measures.

A new initiative for Chula Vista's climate protection program being proposed by the City Council's ICLEI representatives, Councilmember Bensoussan and Councilmember Ramirez, is its *Climate Change Adaptation Strategy*. Climate adaptation is the ability of built, natural, and human systems to accommodate changes in climate with minimal potential damage or cost. Despite all current efforts both locally and globally to mitigate or reduce emissions, some level of climate change will still occur and have noticeable impacts on the San Diego region. In order to manage these likely impacts from climate change and to build on its past leadership, the City of Chula Vista will develop strategies to "adapt" the community to the projected changes avoiding the associated costs of impacts. These strategies will be formalized in a *Climate Change Adaptation Strategy* which will be developed under a framework based on the City's experience with greenhouse gas emissions mitigation planning and guidance from ICLEI-Local Governments for Sustainability. This planning will also coincide with the City's participation in the International Conference on Climate Adaptation held in Seville, Spain in May 2009 and the resulting adaptation planning priorities (known as the "Seville Declaration") agreed upon by various California and Spanish government entities. After developing the draft adaptation strategies with the assistance of community stakeholders, the reconvened Climate Change Working Group, and the Resource Conservation Commission, staff expects to return to City Council for formal review and consideration by October 2010. Staff also anticipates providing interim progress updates to City Council between January and October 2010.